

REMARKS

Claims 1-5, 7, 9-14, 30-34, 36, 38-43, 47-52 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Komatsu* (USPN 5,814,924) in view of EP 0863533 (EP '533).

Applicants respectfully traverse the rejections for at least the following reasons.

With respect to independent claims 1 and 30, Applicants respectfully assert that the applied art, whether taken singly or combined, do not teach or suggest a combination including an insulating layer having at least one island region serving as an electron-emitting section and a metal thin film electrode wherein the metal thin film electrode terminates on the insulating layer within the island region, as claimed. The Final Office Action asserts that silicon dioxide layer 66 of *Komatsu* is an “insulating layer” as claimed and that gate electrode 70/72 of *Komatsu* is a “metal thin film electrode” as claimed. Applicants respectfully disagree.

Before proceeding, Applicants respectfully note that the Final Office Action applies Figures 4A-4D of *Komatsu*. However, the inventive claim is a device claim and, therefore, is related to an article of manufacture in a particular state. In contrast, the devices (plural devices) respectively shown in Figures 4A-4D relate to four different devices produced at differing stages during fabrication (i.e., Figures 4A-4C are three different intermediate products). Because the intermediate products of Figures 4A-4C are in states not capable of acting as electron emitting devices (for example, they lack an island region capable of serving as an electron-emitting section), the following remarks will be directed with respect to Figure 4D of *Komatsu*.

In Figure 4D of *Komatsu*, the gate electrode 70/72 does not terminate on a silicon dioxide layer 66 as the combination of independent claims 1 and 30 sets forth. Instead, the gate electrode 70/72 of Figure 4D in *Komatsu* defines an overhanging roof structure. The Final

Office Action does not rely on EP' 533 to remedy this deficiency, and Applicants respectfully assert that EP '533 cannot remedy this deficiency. As such, Applicants respectfully assert that the rejection of claims 1 and 30 is improper because the applied art, whether taken singly or combined, do not teach or suggest each claimed feature.

With respect to independent claim 51, Applicants respectfully assert that the applied references, whether taken singly or combined, do not teach or suggest a combination including an insulating film having at least one island region wherein the island region defines a curved concave recess portion with the entire recess being semi-spherical in shape, as claimed. In contrast, the structure in Figure 4D of *Komatsu* is designed to have a projecting cathode 68, and therefore, the entire recess in Figure 4D of *Komatsu* is not semi-spherical in shape. As such, the present invention employs an island region as an electron-emitting section without a cone-shaped cathode. The Final Office Action does not rely on EP' 533 to remedy this deficiency, and Applicants respectfully assert that EP '533 cannot remedy this deficiency. As such, Applicants respectfully assert that the rejection of claim 51 is improper because the applied art, whether taken singly or combined, do not teach or suggest each claimed feature.

Accordingly, Applicants respectfully submit the rejections of independent claims 1, 30, and 51 are allowable. Moreover, Applicants respectfully submit that dependent claims 2-5, 7, 9-14, 31-34, 36, 38-43, 47-50 and 52 are allowable at least because of their respective dependence from independent claims 1, 30 and 51, and the reasons set forth above.

Conclusion

In view of the foregoing, Applicants respectfully request reconsideration and the timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding

after consideration of the response, the Examiner is invited to contact the Applicants' undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. §1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

MORGAN, LEWIS & BOCKIUS LLP

By: 

Robert J. Goodell
Reg. No. 41,040

Date: December 10, 2004

Customer No. 009629

MORGAN, LEWIS & BOCKIUS LLP
1111 Pennsylvania Avenue, NW
Washington, D.C. 20004
Tel.: (202) 739-3000